

# The Submarine Division of the Naval Safety Center Presents:

# FLASH

## Factual Lines About Submarine Hazards

October 2002 - December 2002

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## Editor's Note

After the upcoming January/February FLASH, we no longer will mail FLASH to shore based commands that have a .mil domain. We will post the new issues of FLASH (as always) on the Naval Safety Center web site at [www.safetycenter.navy.mil](http://www.safetycenter.navy.mil). If you want us to notify you of the release of the new FLASH, you need to e-mail to me your .mil domain address at [jeffery.shull@navy.mil](mailto:jeffery.shull@navy.mil). Once we place the new issue of FLASH on our web site, I will e-mail you a notification that you can download the new FLASH.



# ***The Latest Word on Tactical Vests***

***MMC(SS) Shull***

Once again force protection tactical vests are in the headlines. IAW messages COMSUBLANT 190905Z NOV 02 (NOTAL) and COMSUBPAC 112309Z DEC 02 (NOTAL) suspend the use of tactical vests. Furthermore, the vest is to be removed from the physical security AEL (2-320024503 dated 29 Oct 02). For ballistic protection, commands should use point blank

body armor issued under the physical security AEL. Squadrons are to collect all force protection vests for turn-in.

AT/FP Warfare Development Center (ATFPWDC) and Commander Fleet Forces Command (CFFC) are still gathering requirements and specifications to determine if a substitute tactical vest is necessary.

## ***MK 5 Auto-Inflatable Utility Life Preserver***

***FTCM(SS/SW) Clements***

The MK 5 AIULP has been in service for many years and is now approaching the end of its service life. The new MK 1 float coat is replacing it. During this quarter's safety surveys, an alarming trend has surfaced with regard to the lack of PMS being accomplished on the MK 5 life jackets. Many of the deck divisions I surveyed had more than 50% of the MK5s out of commission and did not know it. The water-activated batteries were expired; CO2 bottles were punctured, lock wire were

missing or the wrong size, inflation bladders were punctured, etc. The PMS in MIP 5832/012 would have caught all of these problems. Several deck LPOs said they were not spending any more money on the MK 5 because they had the new MK 1 on order. You still have to keep the old MK 5 maintained and safe until it is replaced. Saving a few dollars is not worth someone drowning because the life jacket they entrusted their life with didn't work.

## ***AFFF Bracket Rubber Bumpers***

***MMCS(SS) Downham***

In FLASH (Feb-Mar 2001) an incorrect phone number was listed for the AMEREX Corp for ordering rubber bumpers for the fire extinguisher brackets. **The correct**

**phone number is (205) 655-3271.** Make sure your RPPOs change this number in their Rolodex to preclude calling the wrong number.

# ***Bilge Lighting Update***

***ETC(SS) Houck***

The Board of Inspection and Survey (INSURV) inspection teams have noted a problem with bilge lighting. The same issue had been identified by several submarine safety surveys. As a result, COMSUBPAC 211504Z NOV 02 (NOTAL) advises the following action for all SUBPAC submarines: ***"Unless specifically approved by NAVSEA 05L (During overhaul or DMP), remove all***

***temporary bilge lighting.***" The message also states that EMCM(SS) Baker (SUBPAC electrician) will be working with CSS-17 and the SSN squadrons to submit a draft shipalt package to Naval Sea Systems Command.

If you have any questions or comments concerning bilge lighting contact EMCM(SS) Baker at (808) 473-5577 Ext. 103 or (DSN) 473-5577 Ext. 103.

# ***Escape Trunk Battle Lanterns***

***FTCM(SS/SW) Clements***

Have you ever had to replace an escape trunk battle lantern? During recent submarine safety surveys, I have encountered several improperly modified battle lanterns. When a new battle lantern is received, several modifications need to be accomplished before you install it in the escape trunk. You first must drill two 1/8-inch holes in a convenient location in the case to relieve unbalanced pressure in the lantern. Apply a non-hardening plastic sealer (MIL-I-3064) to close the holes to prevent

moisture penetration. Next, you have to fabricate a protective screen and install it between the lamp lens and lens cover. The type of material needed to fabricate the screen is wire fabric #14 x 0.020 diameter, CRES 97-55-708. These modifications will ensure you have emergency lighting in the escape trunk when you need it the most. **NAVSEA DWG 5858357** (sht. 1, note 9) is 688 specific. Later articles will address SSBN and 637 class submarines.

# ***Blue-shirts: Work the Boat***

***ETC(SS) Houck***

Let me start by saying that this article is not meant to point fingers at anyone. This article is intended to be read by the "blue-shirts" in the hopes of maybe opening some eyes and refocusing on their objectives.

During my survey and ORM visits to the fleet, I talk a lot (almost as much as my

wife) with the "blue-shirts" to find out what's going on (supervisors, you would be amazed at the things I learn). Those of you who have talked with me know that I approach things with a pretty cut and dry attitude. Those of you who haven't had a chance to talk with me or attend one of my

ORM sessions, let me explain it this way.

Ask yourself these three questions:

1. "How many of you have done PMS in the last year?" (Raise your hand if the answer is yes)
2. "In the last year, did you have the MRC with you for every PM you performed?"  
(Keep your hand raised if you answered yes...the other 75% or more of you can lower your hands)
3. "Of all those PMs you've done in the last year, how many of you can honestly say that you have read every word on every MRC for those PMs you performed?" (Keep your hand raised if the answer is yes).

I ask these same three questions during every ORM session I facilitate, and the most hands that I have ever seen raised at the end of the third question was four (in a class of approximately 65). More often

than not, there are zero or maybe one hand still raised at the end of the third question. Why is this? Were you trained to do PMS this way? If you do this with PMS, what other written procedures don't you read (e.g., SOPs, SSORM, CO standing orders, RPMs)?

If you happen to read the lessons learned and mishap report messages (highly recommended for training purposes), you will find that what I mentioned in the paragraph above is unfortunately the norm fleet wide. I'm not telling you "blue-shirts" anything you don't already know. The crew is vital to making things on board run smoothly. If you aren't doing what you know is right, then you are probably part of the problem. So before you go pointing fingers at who's to blame, take a look in the mirror to see if you're doing the right thing. Remember, *officers are supposed to fight the boat, chiefs are supposed to run the boat, and the crew is supposed to work the boat*. It doesn't get any more cut and dry than that!

## ***Nothing is Ever What it Seems!***

### ***MMCS(SS) Downham***

In the FLASH (Jul-Sep 2000) we featured the new and improved MSA "Ultra Elite" EAB. Well, come to find out, now that they're finally making it to the boats, MSA installed an unauthorized head harness. The EAB can be found with MSA part number 10012908, NSN 4240-01-022-1541, on AEL 2-330023047 and 2-330023070.

The problem identified with the unauthorized head harness is that it comes

with only TWO adjustable buckles, located at the chin, which is contrary to NSTM 077, 688/726 Class SSMs and manufacturer donning instructions. The correct head harness part number is 817089 with FIVE adjustable buckles. Now that the problem has been identified, units receiving the EABs with unauthorized head harnesses should contact the parent ISIC for further instructions.

# **“Coming Soon to Your Boat: SHIMS SR-1”**

**LCDR Bragg**

In an effort to continue building upon recent improvements in submarine Hazardous Materials Control and Management (HMC&M) that began with fleet-wide implementation of the Submarine Hazardous Material Inventory and Management System (SHIMS) in 2001, Naval Sea Systems Command (NAVSEA 05M4) and Naval Surface Warfare Center, Carderock Division (NSWCCD 632) have developed the first Service Release (SR-1) to SHIMS. Submarines that are currently using SHIMS need to update their systems with SHIMS SR-1 to integrate improvements into their currently installed systems.

SHIMS SR-1 provides several key updates to SHIMS including:

- An improved Submarine Material Control List (SMCL) which now includes all hazardous materials identified in the Planned Maintenance System (PMS) for submarines and more complete “Use Category” information and “Remarks” regarding material usage requirements
- Hazardous Material Content Code (HMCC) information in place of the Special Material Content Code (SMCC) to help address material compatibility stowage requirements, and

- Updated policy and reference materials, including OPNAVINST 5100.19D Change 1 Chapter D-15 and appendices, the new Submarine Supply Procedure Manual (4406.1F), and an updated SHIMS User's Guide.

In early 2003, the SHIMS team will disseminate the SHIMS Service Release 1 package to all submarine commands. The package provides step-by-step instructions for updating your current SHIMS system with Service Release 1 and includes the SHIMS SR-1 CD-ROM, which carries a self-executable file that will automatically update your current SHIMS system via a simple installation wizard.

In conjunction with the SR 1 release, Naval Surface Warfare Center, Carderock Division will conduct another series of SHIMS training and technical assistance visits to submarine homeports in 2003. The SHIMS team will coordinate visit schedules with designated homeport points of contact.

If you have any questions about SHIMS or Service Release 1, or have suggestions for improving SHIMS please contact the SHIMS technical point of contact, Mr. Kiet Ung, NSWCCD 632, (DSN 287-5235, Commercial 301-227-5235, e-mail: [SHIMS@nswccd.navy.mil](mailto:SHIMS@nswccd.navy.mil)).

## **Submarine Safety Officer Notice**

The submarine safety officer course availability can be found at the following link:

<http://www.norva.navy.mil/navosh/course3fy03.cfm?ID=Submarine%20Safety%20Officer>.

# **How to Sanitize Fresh Fruits and Vegetables**

**HMCS(SS/FMF) Darnell**

Recently, the Naval Environmental Health Center (NEHC) informed us that the sanitizing procedures for fresh produce outlined in CSL/CSP INST 6000.2C must be changed. Article 6.1.5.b.(4) directs the use of a 25 ppm solution of Wescodyne for sanitizing fruits and vegetables suspected of parasitic or bacteriological contamination. According to NEHC, it is against federal law to use Wescodyne in this manner, since Wescodyne has not been approved by the EPA nor listed with the FDA for this purpose. Article 3-2.6 of NAVMED P-5010 Manual of Preventive Medicine, has this to say:

## **3-2.6 Washing Fruits and Vegetables**

- a. Raw fruits and vegetables shall be thoroughly washed in water to remove soil and other contaminants before being cut, combined with other ingredients, cooked, served, or offered for human consumption in ready-to-eat form.
- b. Vegetables of uncertain origin and those purchased in foreign countries, as well as those suspected of being contaminated with pathogenic organisms, must be chemically disinfected by immersion for at least 15 minutes in a 100 ppm free available chlorine (FAC) solution or for 30 minutes in a 50 ppm FAC solution (or other approved solution). Following disinfection, vegetables must be thoroughly rinsed with potable water before being cooked or served. A 100 ppm chlorine solution can be made by

adding 3 tablespoons of 5% sodium hypochlorite to 5 gallons of water; use  $1\frac{1}{2}$  tablespoon for a 50 ppm solution. Head items such as lettuce, cabbage, celery, etc., must be broken apart before disinfecting.

Let me emphasize, that a thorough washing of produce (per 3-2.6 a.) not only helps to get rid of possible surface contaminants, but it is paramount for chemical effectiveness i.e., disinfecting produce when indicated. Unnecessary organic material on your produce may hinder the desired chemical contact and activity.

Well, we can't carry bleach (sodium hypochlorite, per 3-2.6 b.) around with us on submarines just in case we get some questionable produce on board. So, what are we allowed to use to sanitize produce?

The Submarine Material Review Board (SMRB) and NAVSEA have approved for submarine use, a product called Pro-San® Cleaner & Sanitizer for Food Contact Surfaces and Fruit and Vegetable Wash Powder Concentrate. Pro-San® has been added to the Submarine Material Control List (SMCL) and Atmosphere Control Manual. Pro-San® is 66% citric acid, and 3.6% sodium dodecylbenzene sulfonate. It is advertised to kill 99.9% of bacteria, and is approved by the FDA and EPA ("*gras*" - generally recognized as safe) as a secondary direct chemical food additive. Here's what you need to know to procure Pro-San® for your command.

NSN - 9G-6840-01-497-0420,  
Sanitizer-Detergent, General Purpose, U/I:

BX, U/P: \$96.00. There are 12 packets per box. One packet, when mixed with eight gallons of potable water will produce a 1% solution suitable for chemically washing produce. The manufacturer is:

**Microcide® Inc.**  
2209 Niagara Drive  
Troy, MI 48083-5933  
Telephone: 1-800-342-7289  
E-mail: [info@microcideinc.com](mailto:info@microcideinc.com)  
Website: <http://www.microcideinc.com>

The CSL/CSP 6000.2 is currently undergoing a total revision. When released, the revised 6000.2 will contain guidance on sanitizing produce, using Pro-San®. It is important to remember that all chemicals must be used in accordance with the EPA registration approval. Refer to the manufacturer's instructions, label, Material Safety Data Sheet, etc. for use, storage, health and safety considerations. The best choice is to obtain food supplies only from established/approved food sources to minimize risks from contaminated food.

## ***Submarine Life Preservers***

### ***FTCM(SS/SW) Clements***

We now have an updated AEL for all authorized submarine life preservers. AEL 2-330013101 was recently updated to reflect the addition of the new Sterns MK 1 float coat and the new Sterns inherently buoyant life preserver. Note (1) of the AEL states, "Subs with the Mark-5 are to continue utilizing them until no longer serviceable, at which time the new Sterns model Mark-1 life preserver is to be requisitioned as a replacement". The new Mark-1 can be ordered as a complete unit or in pieces. The Kapoc life jacket has also

been replaced with the new Sterns inherently buoyant life jacket. Note (9) states "existing mil spec life preserver (Kapoc) is no longer stocked in the supply system; users of this life preserver may continue to use and repair until no longer repairable and then replace with the new Sterns inherently buoyant life preserver". The repair parts for the Kapoc are also on this AEL.

**NOTE: The only authorized color for the MK 1 IAW the AEL is green.**

## ***Hail and Farewell***

Welcome aboard to MMC(SS) Edwin J. Nixson. Chief Nixson reports to the Naval Safety Center as combat systems and deck safety surveyor in Code 38. Chief Nixson's previous duty stations include: USS Dallas (SSN 700); USS Norfolk (SSN 714); NAS JRB New Orleans; USS Woodrow Wilson (SSN-624); USS Casimir Pulaski

(SSBN 633). You can reach MMC(SS) Nixson at (757) 444-3529 Ext. 7104 (DSN prefix 564), or e-mail at [edward.nixson@navy.mil](mailto:edward.nixson@navy.mil).

Farewell to CDR Tom Warner. CDR Warner has reported to Commander, Operational Test and Evaluation Force (COMOPTEVFOR).

# Effective COMNAVSAFECEN Submarine Safety Advisories

|       |                |   |
|-------|----------------|---|
| 17-00 | 201959Z DEC 00 | Contract Liberty Boat (Water Taxi) Safety   |
| 14-01 | 281345Z DEC 01 | Transferring Oily Waste   |
| 1-02  | 021945Z JAN 02 | Effective COMNAVSAFECEN Afloat Safety Advisories for Surface Ships and Submarines |
| 3-02  | 241315Z JAN 02 | GPS and Charts  |
| 5-02  | 041645Z MAR 02 | Possibly Defective OBA Canisters  |
| 6-02  | 052035Z MAR 02 | COMNAVSAFECEN Security Clearance Information                                      |
| 8-02  | 201255Z JUN 02 | Possibly Defective OBA Canisters  |

To download you must be on a .mil domain terminal. Go to our secure web site by selecting the [DoD menu](#) link. Once you are on the secure site select the [Afloat Messages](#) link and then select the [Submarine effective advisories](#) link.

## Naval Safety Center

375 A Street  
Norfolk, Virginia 23511-4399  
Phone: (757) 444-3520 (DSN 564)  
Fax: (757) 444-8636 (DSN 564)

[submarines@safetycenter.navy.mil](mailto:submarines@safetycenter.navy.mil)  
[www.safetycenter.navy.mil](http://www.safetycenter.navy.mil)

FLASH Editor: MMC(SS) Jeff Shull Ext. 7091  
E-Mail: [jeffery.shull@navy.mil](mailto:jeffery.shull@navy.mil)

Afloat Directorate Head: CDR Don Ciesielski Ext. 7127  
E-Mail: [donald.ciesielski@navy.mil](mailto:donald.ciesielski@navy.mil)

Commander Naval Safety Center  
RADM Stephen Turcotte Ext. 7000

## Warnings, Cautions and Notes

The Flash is a newsletter that provides safety-related information to the fleet. This information is a summary of research from selected mishaps and surveys done throughout the force. This data is provided to assist you in YOUR mishap prevention program and gives advance notice of other safety-related information.

*This newsletter is NOT authoritative but will cite references when available.*

## THE SURVEYORS

### Safety Officer/General Departmental

LCDR David Bragg Ext. 7100  
[david.bragg@navy.mil](mailto:david.bragg@navy.mil)

### DC/Mechanical/Electrical/Electronic

EMC(SS/SW) Greg Seplak Ext. 7092  
[gregory.seplak@navy.mil](mailto:gregory.seplak@navy.mil)

ETC(SS) Craig Houck Ext. 7098  
[craig.houck@navy.mil](mailto:craig.houck@navy.mil)

MMCS(SS) Ron Downham Ext. 7073  
[ronald.downham@navy.mil](mailto:ronald.downham@navy.mil)

### Medical

HMCS(SS) Rich Flannery Ext. 7097  
[richard.flannery@navy.mil](mailto:richard.flannery@navy.mil)

### Combat Systems/Deck/Divers

FTCM(SS) Chris Clements Ext. 7099  
[chris.clements@navy.mil](mailto:chris.clements@navy.mil)

MMC(SS) Jeff Shull Ext. 7091  
[jeffery.shull@navy.mil](mailto:jeffery.shull@navy.mil)

Note: All surveyor e-mail addresses have changed as a result of the Naval Safety Center being assimilated into the NMCI collective.